



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-8131; Directorate Identifier 2015-NM-073-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede Airworthiness Directive (AD) 2008-05-06, which applies to certain The Boeing Company Model 737-100, -200, -300, -400, and -500 series airplanes. AD 2008-05-06 currently requires repetitive inspections for fatigue cracking in the longitudinal floor beam web, upper chord, and lower chord located at certain body stations, and repair if necessary. Since we issued AD 2008-05-06, we have determined that certain repairs and preventive modifications of certain longitudinal floor beam webs inadvertently omitted installation of tapered fillers. Omission of the tapered fillers creates a preload condition that may promote undetected fatigue cracking and subsequent failure of certain longitudinal floor beams. For certain airplanes, this proposed AD would require an inspection to determine if tapered fillers are installed, and related investigative and corrective actions if necessary. We are proposing this AD to detect and correct fatigue cracking of the upper and lower chords and web of the longitudinal floor beams, which could result in rapid loss of cabin pressure.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed rule, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-8131.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-8131; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Alan Pohl, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind

Avenue SW., Renton, WA 98057-3356; phone: 425-917-6450; fax: 425-917-6590; email: alan.pohl@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2015-8131; Directorate Identifier 2015-NM-073-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On February 20, 2008, we issued AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008), for certain The Boeing Company Model 737-100, -200, -300, -400, and -500 series airplanes. AD 2008-05-06 requires repetitive inspections for fatigue cracking in the longitudinal floor beam web, upper chord, and lower chord located at certain body stations, and repair if necessary. AD 2008-05-06 refers to Boeing Service Bulletin 737-57-1296, dated June 13, 2007, as an appropriate source of service information for accomplishing the required actions. AD 2008-05-06 resulted from reports of cracks in the center wing box longitudinal floor beams, upper chord, and lower chord. We issued AD 2008-05-06 to detect and correct fatigue cracking of the upper and lower

chords and web of the longitudinal floor beams, which could result in rapid loss of cabin pressure.

Actions Since AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008), Was Issued

Since we issued AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008), Boeing issued Boeing Service Bulletin 737-57-1296, Revision 1, dated September 26, 2012, which is an alternative method of compliance (AMOC) for the actions required by AD 2008-05-06. We have determined that Boeing Service Bulletin 737-57-1296, Revision 1, dated September 26, 2012, inadvertently omitted installation of tapered fillers during the repair and preventive modification of certain longitudinal floor beam webs. Omission of the tapered fillers creates a preload condition that may promote undetected fatigue cracking and subsequent failure of the longitudinal floor beams at buttock line (BL) 24.82 and BL 45.57.

Related Service Information under 1 CFR part 51

We reviewed Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015. The service information describes procedures for various inspections for fatigue cracks in the longitudinal floor beam web, upper chord, and lower chord, located at the applicable body stations, repairs (including related investigative and corrective actions), and preventive modifications (including related investigative and corrective actions) that terminate the repetitive inspections. The service information also describes procedures for an inspection to determine if tapered fillers are installed, and related investigative and corrective actions. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this NPRM.

FAA’s Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of these same type designs.

Proposed AD Requirements

This proposed AD would retain all requirements of AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008). This proposed AD would also require accomplishing the actions specified in the service information described previously, except as discussed under “Differences Between this Proposed AD and the Service Information.” For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-8131.

The phrase “related investigative actions” is used in this proposed AD. “Related investigative actions” are follow-on actions that (1) are related to the primary action, and (2) further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

The phrase “corrective actions” is used in this proposed AD. “Corrective actions” are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

Formatting and Other Changes Between AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008) and This Proposed AD

Since AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008), was issued, the AD format has been revised, and certain paragraphs have been rearranged. As a result, the corresponding paragraph identifiers have been redesignated in this proposed AD, as listed in the following table:

Revised paragraph identifiers

Requirement in AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008)	Corresponding requirement in this proposed AD
paragraph (f)	paragraph (g)
paragraph (g)	paragraph (h)

In addition, airplane groups identified in Boeing Service Bulletin 737-57-1296, dated June 13, 2007, which is referred to as the appropriate source of service information for accomplishing the actions required by AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008), do not, in all cases, match the airplane groups for Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, which is the appropriate source of service information for accomplishing the new actions specified in this proposed AD.

Also, operators of Group 5 airplanes identified in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, must contact the FAA for actions instead of accomplishing the actions specified in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015. The procedures for inspections and corrective actions specified in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, do not apply to these airplanes (line numbers 1 through 291).

Differences Between this Proposed AD and the Service Information

Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, specifies to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

Costs of Compliance

We estimate that this proposed AD affects 652 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections [retained actions from AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008)]	Up to 25 work-hours X \$85 per hour = \$2,125 per inspection cycle	\$0	\$2,125 per inspection cycle	\$1,385,500 per inspection cycle
Tapered filler inspection [new proposed action]	4 work-hours X \$85 per hour = \$340	\$0	\$340	\$221,680

We estimate the following costs to do any necessary repairs that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these repairs:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Floor beam repair and optional preventative modification	Up to 198 work-hours X \$85 per hour = \$16,830	^[1]	Up to \$16,830
Tapered filler repair	174 work-hours X \$85 per hour = \$14,790	^[1]	\$14,790

^[1] We have received no definitive data that would enable us to provide parts cost estimates for the actions specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national

Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008), and adding the following new AD:

The Boeing Company: Docket No. FAA-2015-8131; Directorate Identifier 2015-NM-073-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008).

(c) Applicability

This AD applies to The Boeing Company Model 737-100, -200, -300, -400, and -500 series airplanes; certificated in any category; as identified in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015.

(d) Subject

Air Transport Association (ATA) of America Code 57, Wings.

(e) Unsafe Condition

This AD was prompted by results from reports of cracks in the center wing box longitudinal floor beams, upper chord, and lower chord. We are issuing this AD to detect and correct fatigue cracking of the upper and lower chords and web of the longitudinal floor beams, which could result in rapid loss of cabin pressure.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Retained Inspections with Revised Service Information and Revised Affected Airplanes

This paragraph restates the requirements of paragraph (f) of AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008), with revised service information and revised affected airplanes. For Groups 1 through 4 airplanes identified in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, do the various inspections for fatigue cracks in the longitudinal floor beam web, upper chord, and lower

chord, located at the applicable body stations specified in the Accomplishment Instructions of Boeing Service Bulletin 737-57-1296, dated June 13, 2007; or Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015; by doing all the actions in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-57A1296, dated June 13, 2007; or Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015; except as provided by paragraph (h) of this AD. Do the inspections at the time specified in paragraph (g)(1) or (g)(2) of this AD, as applicable. As of the effective date of this AD, only use Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, for accomplishing the actions required by this paragraph.

Note 1 to paragraphs (g) and (h) of this AD: The airplane groups identified in Boeing Service Bulletin 737-57-1296, dated June 13, 2007, do not, in all cases, match the airplane groups identified in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015 (Group 4 airplanes in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015 coincide with certain Group 2 airplanes in Boeing Service Bulletin 737-57-1296, dated June 13, 2007).

(1) For Groups 1 and 2 airplanes, except for line numbers 1 through 291, identified in Boeing Service Bulletin 737-57-1296, dated June 13, 2007: Do the inspections at the applicable initial compliance time listed in paragraph 1.E., “Compliance,” of Boeing Service Bulletin 737-57-1296, dated June 13, 2007, except where Boeing Service Bulletin 737-57-1296, dated June 13, 2007, specifies a compliance time after the date on the service bulletin, this AD requires compliance within the specified compliance time after April 8, 2008 (the effective date of AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008)). Repeat the inspections thereafter at the intervals specified in paragraph 1.E., “Compliance,” of Boeing Service Bulletin 737-57-1296, dated June 13, 2007.

(2) For Group 3 airplanes identified in Boeing Service Bulletin 737-57-1296, dated June 13, 2007: Do the inspections at the applicable initial compliance time listed in paragraph 1.E., “Compliance,” of Boeing Service Bulletin 737-57-1296, dated June 13, 2007, except where Boeing Service Bulletin 737-57-1296, dated June 13, 2007, specifies a compliance time after the date on the service bulletin, this AD requires compliance within the specified compliance time after April 8, 2008 (the effective date of AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008)). Repeat the inspections thereafter at the intervals specified in paragraph 1.E., “Compliance,” of Boeing Service Bulletin 737-57-1296, dated June 13, 2007.

(h) Retained Repair Instructions with Revised Service Information that Contains New Repair Actions

This paragraph restates the requirements of paragraph (g) of AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008), with revised service information that contains new repair actions. If any crack is found during any inspection required by paragraph (g) of this AD, do the applicable actions specified in paragraph (h)(1) or (h)(2) of the AD.

(1) For inspections done using Boeing Service Bulletin 737-57-1296, dated June 13, 2007: If any crack is found during any inspection required by paragraph (g) of this AD, and Boeing Service Bulletin 737-57-1296, dated June 13, 2007, specifies contacting Boeing for repair instructions: Before further flight, repair using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

(2) For inspections done using Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015: If any crack is found during any inspection required by paragraph (g) of this AD, before further flight, repair, including doing all applicable related investigative actions and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1296, Revision 2,

dated April 1, 2015; except where Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, specifies contacting Boeing for repair instructions, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (n) of this AD. Accomplishing a repair specified in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, terminates the repetitive inspections required by paragraph (g) of this AD for the repaired area only.

(i) New Requirement of this AD: Inspection for Tapered Fillers for Certain Airplanes, Related Investigative Actions, and Corrective Actions

For Groups 1 through 4, Configuration 1 airplanes identified in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015: Except as provided by paragraph (k) of this AD, at the applicable time specified in table 5 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, do an inspection to determine if tapered fillers are installed; and do all applicable related investigative and corrective actions; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015; except where Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, specifies contacting Boeing for repair instructions, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (n) of this AD. Do all applicable related investigative and corrective actions before further flight. A review of the maintenance records is acceptable in lieu of this inspection if the installation of tapered fillers can be conclusively determined from that review.

(j) New Requirement of this AD: Inspections and Corrective Actions for Group 5 Airplanes

For Group 5 airplanes identified in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015: Except as provided by paragraph (k) of this AD, at the

applicable time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015: Accomplish inspections and applicable corrective actions using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

(k) Exception to Service Information

Where paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, specifies a compliance time “after the Revision 2 date of this service bulletin,” this AD requires compliance within the specified compliance time “after the effective date of this AD.”

(l) Optional Terminating Action

Accomplishing the applicable preventative modification specified in paragraph 3.B.4., “ Preventive Modification” of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, terminates the applicable repetitive inspection required by paragraph (g) of this AD. The preventative modification, including related investigative and corrective actions, must be done in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015; except where Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, specifies contacting Boeing for repair instructions, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

(m) Credit for Previous Actions

This paragraph provides credit for actions required by paragraphs (g) and (h)(2) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 737-57-1296, Revision 1, dated September 26, 2012.

(n) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (o)(1) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane and the approval must specifically refer to this AD.

(4) AMOCs approved as specified in the fourth paragraph (related to AD 2008-05-06) of Section 1.F., Approval, of Boeing Service Bulletin 737-57-1296, Revision 1, dated September 26, 2012, for repairs and modifications are not approved for any provision of this AD. All other AMOCs approved for AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008), are approved as AMOCs for the corresponding provisions of this AD.

(o) Related Information

(1) For more information about this AD, contact Alan Pohl, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind

Avenue SW., Renton, WA 98057-3356; phone: 425-917-6450; fax: 425-917-6590; email: alan.pohl@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on December 21, 2015.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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